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| Substitute Form PTO-1449<br>(Modified)  | U.S. Department of Commerce<br>Patent and Trademark Office | Attorney's Docket No.<br>04037-011001 | Application No.<br>09/439,545 |
| <b>Information Disclosure Statement<br/>by Applicant</b><br>(Use several sheets if necessary) |  | Applicant<br>David E. Wolf            |                               |
|   |  | Filing Date<br>November 12, 1999      |                               |
| (37 CFR §1.98(b))   |  | Group Art Unit<br>3737                |                               |

## U.S. Patent Documents

| Examiner Initial | Desig. ID | Patent Number | Issue Date | Patentee         | Class | Subclass | Filing Date If Appropriate |
|------------------|-----------|---------------|------------|------------------|-------|----------|----------------------------|
| AC               | AA        | 4,041,932     | 08/16/77   | Fostick          |       |          |                            |
|                  | AB        | 4,071,020     | 01/31/78   | Pugliese         |       |          |                            |
|                  | AC        | 4,330,299     | 05/18/82   | Cerami           |       |          |                            |
|                  | AD        | 4,344,438     | 08/17/82   | Schultz          |       |          |                            |
|                  | AE        | 4,352,883     | 10/05/82   | Lim              |       |          |                            |
|                  | AF        | 4,353,888     | 10/12/82   | Sefton           |       |          |                            |
|                  | AG        | 4,391,909     | 07/05/83   | Lim              |       |          |                            |
|                  | AH        | 4,401,122     | 08/30/83   | Clark, Jr.       |       |          |                            |
|                  | AI        | 4,409,331     | 10/11/83   | Lim              |       |          |                            |
|                  | AJ        | 4,532,123     | 07/30/85   | Gardner          |       |          |                            |
|                  | AK        | 4,663,286     | 05/05/87   | Tsang et al.     |       |          |                            |
|                  | AL        | 4,744,933     | 05/17/88   | Rha et al.       |       |          |                            |
|                  | AM        | 4,806,355     | 02/21/89   | Goosen et al.    |       |          |                            |
|                  | AN        | 4,933,185     | 06/12/90   | Wheatley et al.  |       |          |                            |
|                  | AO        | 4,981,779     | 01/01/91   | Wagner           |       |          |                            |
|                  | AP        | 5,001,051     | 03/19/91   | Miller et al.    |       |          |                            |
|                  | AQ        | 5,028,787     | 07/02/91   | Rosenthal et al. |       |          |                            |
|                  | AR        | 5,084,350     | 01/28/92   | Chang et al.     |       |          |                            |
|                  | AS        | 5,101,814     | 04/07/92   | Palti            |       |          |                            |
|                  | AT        | 5,143,066     | 09/01/92   | Kornives et al.  |       |          |                            |
|                  | AU        | 5,211,945     | 05/18/93   | Wallach et al.   |       |          |                            |
|                  | AV        | 5,227,298     | 07/13/93   | Weber et al.     |       |          |                            |
|                  | AW        | 5,244,636     | 09/14/93   | Walt et al.      |       |          |                            |
|                  | AX        | 5,320,814     | 06/14/94   | Walt et al.      |       |          |                            |
|                  | AY        | 5,324,518     | 06/28/94   | Orth et al.      |       |          |                            |
|                  | AZ        | 5,326,531     | 07/05/94   | Hahn et al.      |       |          |                            |
| AC               | AAA       | 5,330,768     | 07/19/94   | Park et al.      |       |          |                            |

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| AC               | ABB       | 5,341,805     | 08/30/94   | Stavridi et al.    |       |          |                            |
|                  | ACC       | 5,342,789     | 08/30/94   | Chick et al.       |       |          |                            |
|                  | ADD       | 5,427,935     | 06/27/95   | Wang et al.        |       |          |                            |
|                  | AEE       | 5,459,054     | 10/17/95   | Skjak-Braek et al. |       |          |                            |
|                  | AEF       | 5,460,971     | 10/24/95   | Gottlieb           |       |          |                            |
|                  | AGG       | 5,512,544     | 04/30/96   | Wallach et al.     |       |          |                            |
|                  | AHH       | 5,543,158     | 08/06/96   | Gref et al.        |       |          |                            |
|                  | ALL       | 5,545,423     | 08/13/96   | Soon-Shiong et al. |       |          |                            |
|                  | AJJ       | 5,578,325     | 11/26/96   | Domb et al.        |       |          |                            |
|                  | AKK       | 5,626,862     | 05/06/97   | Brem et al.        |       |          |                            |
|                  | ALL       | 5,651,980     | 07/29/97   | Lanza et al.       |       |          |                            |
|                  | AMM       | 5,679,340     | 10/21/97   | Chappel            |       |          |                            |
|                  | ANN       | 5,869,077     | 02/09/99   | Dionne et al.      |       |          |                            |
|                  | AOO       | 5,871,767     | 02/16/99   | Dionne et al.      |       |          |                            |
|                  | APP       | 5,972,363     | 10/26/99   | Cliekman et al.    |       |          |                            |
|                  | AQQ       | 5,955,108     | 09/21/99   | Sutton et al.      |       |          |                            |

## Foreign Patent Documents or Published Foreign Patent Applications

| Examiner Initial | Desig. ID | Document Number | Publication Date | Country or Patent Office | Class | Subclass | Translation |    |
|------------------|-----------|-----------------|------------------|--------------------------|-------|----------|-------------|----|
|                  |           |                 |                  |                          |       |          | Yes         | No |
|                  | ARR       | 0 127 713       | 11/02/89         | EPO                      |       |          |             |    |
|                  | ASS       | 0 127 989       | 12/12/84         | EPO                      |       |          |             |    |
|                  | ATT       | 0 180 309 B2    | 12/17/97         | EPO                      |       |          |             |    |
|                  | AUU       | 0 188 309 B1    | 05/23/90         | EPO                      |       |          |             |    |
|                  | AVV       | 0 301 777 A1    | 02/01/89         | EPO                      |       |          |             |    |
|                  | AWW       | 0 433 900 B1    | 09/20/95         | EPO                      |       |          |             |    |
|                  | AXX       | 0 512 328 B1    | 09/15/99         | EPO                      |       |          |             |    |
| AC               | YYY       | 0 526 905 A2    | 02/10/93         | EPO                      |       |          |             |    |

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Arum K. Chakrabarti

Date Considered

4/18/03

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Substitute Disclosure Form (PTO-1449)

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|---|-----------|-----------------|------------------|--------------------------|-------|----------|-------------|----|
| Examiner Initial  | Desig. ID | Document Number | Publication Date | Country or Patent Office | Class | Subclass | Translation |    |
|   |           |                 |                  |                          |       |          | Yes         | No |
| AC  | AZZ       | 0 606 869 A1    | 07/20/94         | EPO                      |       |          |             |    |
|   | AAAA      | 1 236 885       | 06/23/71         | GB                       |       |          |             |    |
|   | ABBB      | 1 257 178       | 12/15/71         | GB                       |       |          |             |    |
|   | ACCC      | 2 119 734 A     | 11/23/83         | GB                       |       |          |             |    |
|   | ADDD      | WO 83/03061     | 09/15/83         | PCT                      |       |          |             |    |
|   | AEEE      | WO 90/10861     | 09/20/90         | PCT                      |       |          |             |    |
|   | AFFF      | WO 92/19195     | 11/12/92         | PCT                      |       |          |             |    |
|   | AGGG      | WO 93/24112     | 12/09/93         | PCT                      |       |          |             |    |
|   | AHHH      | WO 94/12161     | 06/09/94         | PCT                      |       |          |             |    |
|   | IIII      | WO 94/15589     | 07/21/94         | PCT                      |       |          |             |    |
|   | AJJJ      | WO 95/19743     | 07/27/95         | PCT                      |       |          |             |    |
|   | AKKK      | WO 95/31206     | 11/23/95         | PCT                      |       |          |             |    |
|   | ALLL      | WO 96/28029     | 09/19/96         | PCT                      |       |          |             |    |
|   | AMMM      | WO 99/29306     | 06/17/99         | PCT                      |       |          |             |    |

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|   | ANNN      | Abbas et al., <i>Cell &amp; Molecular Immunology</i> , Saunders Press, Philadelphia, 2 <sup>nd</sup> Edition, 1994, Chapter 12, pp. 240-260 |
|   | AOOO      | Bruce et al., <i>Neurobiology of Aging</i> , 1989, 10:89-94   |
|   | APPP      | Bruni et al., <i>Biomat. Art. Cells Art. Org.</i> , 1989, 17(4):403-411   |
|   | AQQQ      | Cai et al., <i>Hepatology</i> , 1989, 10(5):855-860   |
|   | ARRR      | Cardullo et al., <i>Proc. Natl. Acad. Sci. USA</i> , 1988, 85(23):8790-8794   |
|   | ASSS      | Cardullo et al., <i>Analytical Biochemistry</i> , 1990, 188:305-309   |
|   | ATTT      | Cerra, <i>Surgery</i> , 1987, 101(1):1-14   |
|   | AUUU      | Chang et al., <i>Canadian Journal of Physiology and Pharmacology</i> , 1966, 44:115-122   |
| ✓   | AVVV      | Chang, <i>Artificial Organs</i> , 1980, 4(4):264-271  |
| AC  | AWWW      | Chang, <i>Biomat. Art. Cells &amp; Immob. Biotech.</i> , 1992, 20(5):1121-1143  |

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|---------------------|--------------|---|
| AC                  | AXXX         | Chang, <u>Biomater. Art. Cells &amp; Immob. Biotech.</u> , 1992, 20(2-4):159-179  |
|                     | AYYY         | Chang, <u>Fundamentals of Animal Cell Encapsulation and Immobilization</u> , 1993, by Mattheus F. A. Goosen, London - CRC Press, Chapter 8, pp. 183-196 |
|                     | AZZZ         | Chang, <u>Biomater. Art. Cells &amp; Immob. Biotech.</u> , 1993, 21(3):291-297  |
|                     | AAAAA        | Chien et al., <u>Proc. Natl. Acad. Sci. USA</u> , 1991, 88:9578-9582  |
|                     | ABBBB        | Dahinden et al., <u>Int. Arch. Allergy Immunol.</u> , 1997, 113:134-137   |
|                     | ACCCC        | de Oca et al., <u>Transplantation Proceedings</u> , 1997, 29(3):1803  |
|                     | ADDDD        | Dupuy et al., <u>Biomaterials</u> , 1991, 12(5):493-496   |
|                     | AEEEE        | Essayan et al., <u>Biochemical Pharmacology</u> , 1997, 53(7):1055-1060   |
|                     | AFFFF        | Fici et al., <u>Free Radical Biology &amp; Medicine</u> , 1997, 22(1-2):223-228   |
|                     | AGGGG        | Forster, <u>Zeitschrift für Naturforschung</u> , 1949, 4a:321-327   |
|                     | AHHHH        | Förster, <u>Discussions of the Faraday Society</u> , 1959, 27:7-17  |
|                     | AIIII        | Goodman et al., <u>Cytokine &amp; Growth Factor Reviews</u> , 1996, 7(2):191-202  |
|                     | AJJJJ        | Goosen et al., <u>Polymers in Medicine II: Biomedical and Pharmaceutical Applications</u> , 1985, Chiellini et al., (eds.), Plenum Press, pp. 235-246   |
|                     | AKKKK        | Goosen, <u>CRC Critical Reviews in Biocompatibility</u> , 1987, 3(1):1-24   |
|                     | ALLLL        | Grasbon-Frodl et al., <u>Exp. Brain Res.</u> , 1997, 113:138-143  |
|                     | AMMMM        | Haugland, <u>Handbook of Fluorescent Probes and Research Chemicals</u> , 1989, Molecular Probes, Inc., Eugene, Oregon (Table of Contents only)          |
|                     | ANNNN        | Heller et al., <u>Rapid Detection and Identification of Infectious Agents</u> , 1985, Academic Press, pp. 245-256                                       |
|                     | AOOOO        | Heller et al., <u>Federation Proceedings</u> , 1987, 46(6), Abstract No. 248  |
|                     | APPPP        | Ishizaki et al., <u>Transplantation Proceedings</u> , 1997, 29(1-2):1333-1334   |
|                     | AQQQQ        | Ito et al., <u>Artif. Organs</u> , 1992, 16(4):422-427  |
|                     | ARRRR        | Joyce et al., <u>Eur. J. Immunol.</u> , 1994, 24(11):2699-2705  |
|                     | ASSSS        | Kirk-Othmer, <u>Encyclopedia of Chemical Technology</u> , Fourth Edition, John Wiley & Sons, New York, Vol. 4, pp. 208-220                              |
|                     | ATTTT        | Krysztopik et al., <u>Transplantation</u> , 1997, 63(9):1215-1220   |
|                     | AUUUU        | Kucharzik et al., <u>Digestive Diseases and Sciences</u> , 1997, 42(4):805-812  |
| ✓                   | AVVVV        | Lakowicz, <u>Laser Focus World</u> , 1992, 28(5):60-62, 66-80   |
| AC                  | AWWWW        | Lanza et al., <u>Proc. Natl. Acad. Sci. USA</u> , 1991, 88(24):11100-11104  |

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| AC                  | AXXXX        | Leung et al., <u>Artificial Organs</u> , 1983, 7(2):208-212                                   |
|                     | AYYYY        | MacDonald, <u>Int. Arch. Allergy Immunol.</u> , 1997, 113:187-189                             |
|                     | AZZZZ        | McKinnon et al., <u>Molecular Reproduction and Development</u> , 1991, 29:200-207             |
|                     | AAAAA        | Meadows et al., <u>Talanta</u> , 1988, 35(2):145-150  |
|                     | ABBBB        | Nelson et al., <u>Diabetes Spectrum</u> , 1992, 5(6):324-325, 370-371                         |
|                     | ACCCC        | Nguyen et al., <u>Journal of Investigative Medicine</u> , 1997, 45(3):241A                    |
|                     | ADDDD        | Parker et al., <u>SEITE</u> , 1986, 713:113-120   |
|                     | AEEEE        | Patel et al., <u>Toxicology and Applied Pharmacology</u> , 1997, 142:116-122                  |
|                     | AFFFF        | Roberts et al., <u>Journal of Investigative Medicine</u> , 1997, 45(3):235A                   |
|                     | AGGGG        | Rosenberg et al., <u>New Eng. J. Med.</u> , 1990, 323(9):570-578                              |
|                     | AHHHH        | Schultz et al., <u>Diabetes Care</u> , 1982, 5(3):245-253                                     |
|                     | AIIII        | Segal et al., <u>Journal of Immunology</u> , 1997, 158:5087-5090                              |
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|                     | ALLLL        | Stryer et al., <u>Proc. Natl. Acad. Sci. USA</u> , 1967, 58:719-726                           |
|                     | MMMM         | Sun et al., <u>CRC Critical Reviews in Therapeutic Drug Carrier Systems</u> , 1987, 4(1):1-12 |
|                     | ANNNN        | Tanaka et al., <u>Journal of the American College of Surgeons</u> , 1997, 184(4):389-396      |
|                     | AOOOO        | Torri et al., <u>Molecular and Chem. Neuropathy</u> , 1997, 30(1-2):15-24                     |
|                     | APPPPP       | Villa et al., <u>Pharmacological Reviews</u> , 1997, 49(1):99-136                             |
|                     | AQQQQ        | Warnock et al., <u>Diabetes</u> , 1988, 37(4):467-470   |
|                     | ARRRR        | Welling et al., <u>Human Gene Therapy</u> , 1996, 7(15):1795-1802                             |
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|                     | AUUUU        | Williams et al., <u>Proc. Natl. Acad. Sci. USA</u> , 1986, 83(23):9231-9235                   |
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| ✓ AC                | WWWWW        | Wong et al., <u>Biomat., Art. Cells, Art. Org.</u> , 1988, 16(4):731-739                      |
|                     | AXXXX        | Wong et al., <u>Biomat., Art. Cells &amp; Immob. Biotech.</u> , 1991, 19(4):675-686           |

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|                     | AZZZZ        | Young et al., <u>BioPharm.</u> 1989, 2:34-46  |
|                     | AAAAA        | Young, <u>Fundamentals of Animal Cell Encapsulation and Immobilization</u> , CRC Press, 1993, Chapter 11, pp. 243-265 |
| AC                  | BBBBB        | Zurawski et al., <u>Immunology Today</u> , 1994, 15(1):19-26  |

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